version, except that marked up versions are not being supplied for any added claim or canceled claim.

CLAIMS

NE 22. A semiconductor processing method comprising:

forming an antireflective material layer over a substrate;

annealing at least a portion of the antireflective material layer at a temperature of at least 550°C;

forming a layer of photoresist over the annealed antireflective material layer;

patterning the layer of photoresist; and

removing a portion of the antireflective material layer unmasked by the patterned layer of photoresist.

NE 23. The method of claim 22 wherein the layer of photoresist is formed against the antireflective material layer.

NE 24. A semiconductor processing method comprising:

forming an antireflective material layer over a substrate;

annealing the antireflective material layer at a temperature of at least 550°C;

forming a layer of photoresist over the annealed antireflective material layer; and

exposing portions of the layer of photoresist to radiation waves, some of the radiation waves being attenuated by the antireflective material during the exposing.

NE 25. The method of claim 24 wherein the attenuation comprises absorbing radiation waves with the antireflective coating.

NE 26. The method of claim 24 wherein the layer of photoresist is formed against the antireflective material layer.

NE 27. The method of claim 24 further comprising exposing the antireflective material layer to a nitrogen-containing atmosphere during the annealing.

28. A semiconductor processing method comprising;

forming a solid antireflective material layer over a substrate;

altering optical properties of the antireflective material layer by annealing the antireflective material layer at a temperature greater than or equal to about 550°C;

after altering the optical properties, forming a layer of photoresist over the antireflective material layer; and

exposing portions of the layer of photoresist to radiation waves and absorbing some of the radiation waves with the antireflective material.

29. The method of claim 28 further comprising exposing the antireflective material layer to an atmosphere during the altering, the atmosphere comprising at least one of nitrogen and argon.

30. The method of claim 28 wherein the optical properties which are altered include at least one of a refractive index coefficient or an extinction coefficient.

NE 31. The method of claim 28 further comprising:

chemical vapor depositing the antireflective material layer onto the substrate at a temperature of from about 300°C to about 400°C; and

selectively removing either the exposed or unexposed portions of the photoresist while leaving the other of the exposed and unexposed portions over the substrate.

Please add the following new claims:

New Claims

(41) 32. (New) The method of claim 22 wherein the annealing comprises annealing at a temperature of from about 800°C to about 1050°C.

(42) 33. (New) The method of claim 22 wherein the annealing comprises altering optical properties of the antireflective material layer.

(43) 34. (New) The method of claim 22 wherein the antireflective material layer comprises oxygen, nitrogen and silicon.

(44) 35. (New) The method of claim 24 wherein the annealing comprises annealing at a temperature of from about 800°C to about 1050°C.

(45) 36. (New) The method of claim 24 wherein the annealing comprises altering optical properties of the antireflective material layer.

(46) 37. (New) The method of claim 24 wherein the antireflective material layer comprises oxygen, nitrogen and silicon.

C1 CONT.

(47) 38. (New) The method of claim 28 wherein the altering comprises annealing at a temperature of from about 800°C to about 1050°C.

(48) 39. (New) The method of claim 28 wherein the antireflective material layer comprises oxygen, nitrogen and silicon.